

CLAIMS

1. A resin composition containing (a) a polyamide; (b) a polyphenylene ether; (c) at least one partially hydrogenated block copolymer; (d) copper; and (e) titanium dioxide and/or carbon black, wherein

the polyphenylene ether (b) in the composition has a weight average molecular weight in the range of 45,000-65,000,

the partially hydrogenated block copolymer (c) is a partially hydrogenated product of an ABA type and/or an ABAB type block copolymer comprising an aromatic vinyl compound block (A) and a conjugated diene compound block (B),

the copper (d) is contained in an amount of 1-20 mass ppm based on the total mass of the resin composition,

the titanium dioxide and/or carbon black (e) are contained in an amount of 0.1-2 mass % based on the total mass of the resin composition,

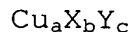
the polyamide (a) forms a continuous phase, the polyphenylene ether (b) is dispersed in the continuous phase to form a dispersed phase, the partially hydrogenated block copolymer (c) is present in at least one phase selected from the continuous phase of the polyamide (a) and the dispersed phase of the polyphenylene ether (b), whereby when the partially hydrogenated block copolymer (c) is present in the dispersed phase of the polyphenylene ether (b), the

partially hydrogenated block copolymer (c) forms a dispersed phase together with the polyphenylene ether (b) and when the partially hydrogenated block copolymer (c) is present in the continuous phase of the polyamide (a), the partially hydrogenated block copolymer (c) singly forms a dispersed phase different from the dispersed phase of the polyphenylene ether (b), and

the dispersed phase containing the polyphenylene ether (b) and/or the partially hydrogenated block copolymer (c) dispersed in the polyamide (a) has a ratio (D_v/D_n) of a volume average particle diameter (D_v) and a number average particle diameter (D_n) in the range of 2.0-5.0.

2. A resin composition according to claim 1 which contains the copper (d) in an amount of 1-10 mass ppm based on the total mass of the resin composition.

3. A resin composition according to claim 1, wherein the copper (d) is represented by the formula:



(in the above formula, Cu represents copper, X represents a group selected from OH, CH_3COO , SO_4 and CN, Y represents oxygen or a halogen, and a, b and c represent an integer of 0-7, with a proviso that a cannot be 0).

4. A resin composition according to claim 1, wherein the D_v/D_n is in the range of 2.5-5.0.

5. A resin composition according to claim 1, wherein the polyphenylene ether (b) in the resin

composition has a weight average molecular weight in the range of 45,000-58,000.

6. A resin composition according to claim 1, wherein a mixture of two or more polyphenylene ethers different in weight average molecular weight is used as the polyphenylene ether (b).

7. A resin composition according to claim 1, wherein a mixture of a functionalized polyphenylene ether and an unfunctionalized polyphenylene ether is used as the polyphenylene ether (b).

8. A resin composition according to claim 1, wherein the polyamide (a) is polyamide 6,6.

9. A resin composition according to claim 1 which contains a polyamide previously containing the copper (d) as the polyamide (a).

10. A resin composition according to claim 9 which contains as the polyamide (a) at least two polyamide components of a polyamide containing the copper (d) in an amount of not less than 10 ppm and not more than 150 ppm and a polyamide containing the copper (d) in an amount of not less than 0 ppm and less than 10 ppm.

11. A resin composition according to claim 1 which contains at least one partially hydrogenated block copolymer having a number average molecular weight of 200,000-300,000 as the partially hydrogenated block copolymer (c).

12. A resin composition according to claim 1

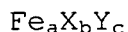
which contains a polyphenylene ether copolymer (b-1) of 2,6-dimethylphenol and 2,3,6-trimethylphenol as the polyphenylene ether (b), each monomer unit of the polyphenylene ether copolymer (b-1) comprising 80-90 mass % of 2,6-dimethylphenol and 10-20 mass % of 2,3,6-trimethylphenol based on the total mass of the polyphenylene ether copolymer (b-1).

13. A resin composition according to claim 1, wherein the titanium dioxide and/or carbon black (e) are previously mixed with at least a part of the polyamide (a), and then mixed with the polyphenylene ether (b) and the partially hydrogenated block copolymer (c).

14. A resin composition according to claim 1, wherein carbon black having a DBP absorption (measured in accordance with ASTM D2414) of not more than 100 cc/100 g is used as the component (e).

15. A resin composition according to claim 1 which additionally contains (f) iron in an amount of not more than 300 mass ppm based on the total mass of the resin composition.

16. A resin composition according to claim 15, wherein the iron (f) is represented by the formula:



(in the above formula, Fe represents iron, X represents a group selected from OH, CH₃COO, SO₄ and CN, Y represents oxygen or a halogen, and a, b and c represent an integer of 0-7, with a proviso that a

cannot be 0).

17. A molded article comprising the resin composition of claim 1.

18. A molded article according to claim 17 which has a curved surface having a radius of 200-400 mm on the outer surface.

19. A molded article according to claim 17 which is a part for vehicles.

20. A molded article according to claim 17 which is an exterior material for vehicles.